# SYSTEM AND METHOD FOR PERFORMING SEGMENTATION-BASED ENHANCEMENTS OF A VIDEO IMAGE

## ABSTRACT OF THE DISCLOSURE

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There is disclosed an apparatus for performing segmentation-based enhancements of a video image. The apparatus comprises: 1) an input buffer for storing video frames of an incoming video signal; 2) a segmentation controller capable of segmenting a first stored frame into a plurality of segments, each of the plurality of segments comprising a plurality of pixels having at least one common property; 3) an image processor capable of calculating a probability function associated with at least one pixel in the first stored frame, the probability function indicating a probability that the at least one pixel belongs within a first selected one of the plurality of segments; and 4) an enhancement controller capable of enhancing a parameter of the at least one pixel as a function of the probability function of the at least one pixel.